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## 1. General

This manual is only applicable for the illustrated design of the tanker ladder. It consists of diverse individual parts, which can be individually purchased as supplements or spare parts.

**Please note the individual installation steps shown in illustrated form for safe installation.**

If the installation, dismantling or retrofitting creates any problems, then please get in touch with your supplier. The manufacturer/supplier does not bear any liability with respect to damages caused by incorrect installation, retrofitting or dismantling. Damaged or defective parts should not be used. We reserve the right to technical changes of the product.

### 1.1 Duties of the operator

The operator of the tanker ladder must ensure the following on own responsibility:

- that this installation and user manual is carried along at each use, as well as for installation and dismantling.
- that the operating personnel are informed about the content and the safety and risk information of this manual and that the notes and specifications are followed in detail.
- that the tanker ladder is deployed only for its intended use.

### 1.2 Manufacturer

The following company is the manufacturer of the tanker ladder described in this document:

KRAUSE-Werk GmbH & Co. KG  
Am Kreuzweg 3  
D-36304 Aisfeld  
Tel.: +49 6631 / 795-0  
Fax: +49 6631 / 795-139  
[www.krause-systems.com](http://www.krause-systems.com)



### 1.3 Applicable regulations

The tanker ladder was manufactured in compliance with DIN EN ISO 14122.

### 1.4 Warranty

The exact wording of the warranty is fixed in the Terms and Conditions of Sale and Delivery of the supplier. The manufacturer assumes a warranty of 2 years from the date of sale of the respective part for material defects. The manufacturer reserves the right to replace or repair the defective part as per his own discretion.

With respect to warranty claims for documentation, the Installation and user manual valid on the day of the sale is decisive. A warranty claim is excluded if the damages have occurred due to one or more of the following reasons:

- Ignorance or non-compliance of the Installation and user manual, especially with respect to the safety instructions, the instructions pertaining to proper and improper use, the instructions related to the up-keep and maintenance, the assembly and disassembly instructions.
- If the operating personnel were not adequately qualified or not adequately informed.
- If original spare parts and accessories have not been used.
- If damaged or defective parts have been used.

## 1.5 Copyrights and patent rights

The manufacturer has the ownership of all rights to the Installation and user manual. Any kind of copying, even as extracts, is only permitted with the approval of the manufacturer. The manufacturer reserves the right to issue patents and register utility models. Violations will lead to a claim for damage compensation.

## 1.6 Date of issue

The date of issue of this Installation and user manual is 01.09.2020.

# 2. Information about the product

## 2.1 Intended use

The tanker ladder may be used only in the scope of the use illustrated in the manual. It is designed for entering the accessible vehicle roof areas within the railings. The platform of the tanker ladder must be extended to the height of the exit area for this purpose.

**The maximum permitted load of the steps and the platform is 150 kg.**

- The tanker ladder should only be set up on an even ground with adequate load-bearing capacity.
- It must be ensured prior to the use that all the necessary safety precautions have been undertaken and the tanker ladder was installed properly as per the Installation and user manual. For this purpose, a risk and load evaluation must be prepared specially with respect to the vehicles to be boarded so that specific risks can be minimized or excluded.
- Any use over and above the same is considered as non- intended. The manufacturer does not bear liability for damages arising due to non-intended use, the risk is borne by the user alone.
- All equipment parts must be used only as per their intended use and in technically faultless condition and must be operated, maintained and repaired by trained, qualified and authorized personnel.
- Danger to life exists in case of incorrect use. The tanker ladder and other material assets can be damaged or destroyed.

## 2.2 Non-intended use

The tanker ladder should only be used for the intended use specified under 2.1 A deviation from the same is considered as non-intended use in the terms of the product safety act. The same is applicable for the violation of the safety regulations stated in this Installation and user manual.

Non-intended use also constitutes the following:

- incorrect repairs or repairs that are not carried out by authorized personnel.
- use of spare parts other than the original spare parts,
- use of the tanker ladder with defective parts or parts that functionally unreliable.
- installation personnel or users who are not adequately qualified,
- arbitrary structural changes,
- catastrophes caused by external elements or force majeure.
- Danger to life exists in case of incorrect use.

## **3. Safety regulations**

### **3.1 Safety instructions for the installation and use**

- The operator must ensure at his own responsibility that the safety, work and maintenance regulations are complied with and use as per intention is ensured.
- The person who is responsible for installation, retrofitting and dismantling must ensure that the work is supervised and carried out by personnel with adequate technical knowledge in order to ensure a correct and safe implementation.
- The installation and dismantling as well as its use must only be undertaken by personnel who are acquainted with this manual.
- TRBS 2121 Part 2 is also applicable for the commercial user. All the regulations herein must be followed.
- At least 3 persons are required for the installation and the dismantling.
- The installation and use must be carried out only on even and stable installation surfaces, which can bear the weight of the tanker ladder.
- The supervisory personnel must check if there are electrical systems/overhead lines or moving parts in the area of use of the tanker ladder. Safety distances must be maintained as per DIN 75105/VDE 0105-1.
- Only faultless original parts of the tanker ladder should be used.
- The castors must be secured via pressing down of the brake lever prior to use and all parts must be checked for correct assembly and functionality.
- The regulations and standards DIN EN 131-1 and DIN EN 131-2 are applicable for the stability and loading of the tanker ladder.
- The regulations of DGUV 208-016 „Ladders and stepladders“ are applicable for the use of the tanker ladder.
- The regulations of BGV D8 „Winches, hoists and towing devices“ are applicable for using winches.

| Standard/regulation | Area of application                   |
|---------------------|---------------------------------------|
| DIN EN 131-1        | Ladders                               |
| DIN EN 131-2        | Ladders                               |
| TRBS 2121-2         | „Preparation and use of ladders“      |
| DGUV 208-016        | “Handling ladders and stepladders”    |
| DIN EN 131-7        | Platform ladders (in parts)           |
| DGUV 208-011        | “BG information for platform ladders” |
| BGV D8              | “Winches, hoists and towing devices”  |

## 3.2 Safety symbols



**Caution!** Read the Installation and user manual before commissioning!



Warning about a hazardous area!



Warning about fall hazard!

## 4. Use

### 4.1 Prior to use

- Check all the individual parts for correct assembly and functionality.
- All swivel castors must be fixed by pressing down the brake lever. Open the lever for rolling the movable tanker ladder.
- Prior to use, after long work intervals, especially after external influences (such as storm, snowfall, quakes etc.), check the tanker ladder visually for defects and completeness.
- Do not use it in case of icing of the ladder!
- Do not use the tanker ladder in case of oncoming winds and proceed to a wind-protected area. If necessary, secure the tanker ladder against tipping via appropriate measures. Do not attach any signs or parts to the tanker ladder, which increase the impact area of the wind.

- Roll out the platform to the appropriate height. The platform of the tanker ladder should be set approximately to the height of the exit area.
- The steps of both the ladder parts must be congruent, so that a comfortable climbing is possible. Lock the toothed rod protection again.

## 4.2 Use regulations

- All safety instructions and measure prior to use must be followed and fulfilled.
- Climb over to the work platform only via the ladder.
- Do not attach any hoists to the ladder and railings.
- Do not store any tools or materials on the platform.
- Do not place any load on the platform. Do not pull up loads.
- Do not press on the side protection. Do not lean on or over the handrails.
- Do not cross over the railings of the platform.
- The projecting railing of the tanker ladder has been only provided to limit the area of movement. Vertical loads cannot be pulled up from this railing.
- Horizontal loads can be pulled up by the projecting railing only to a minor extent.
- When the tanker ladder is used in the open or in open buildings, then roll it or secure it against tipping in case of strong winds, oncoming storm and after work completion. The attachments of the tanker ladder to the hoists is forbidden.

## 4.3 Moving the tanker ladder

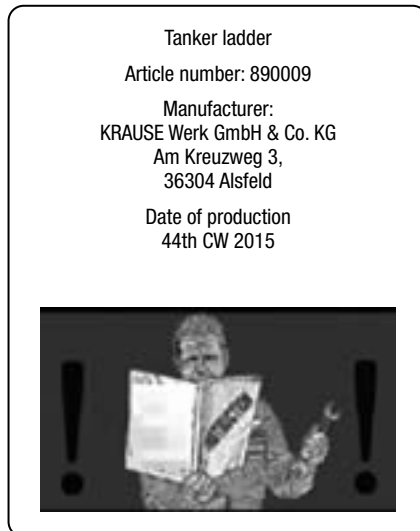
- While moving, there should be no persons or loose objects on the platform.
- Move only on a ground with adequate load-bearing capacity.
- Move only with normal walking pace by hand on an even surface (floor inclination max 3 degree)
- The tanker ladder should never be moved with the help of vehicles.
- Fix the locking brake again after moving

## 5. Technical data

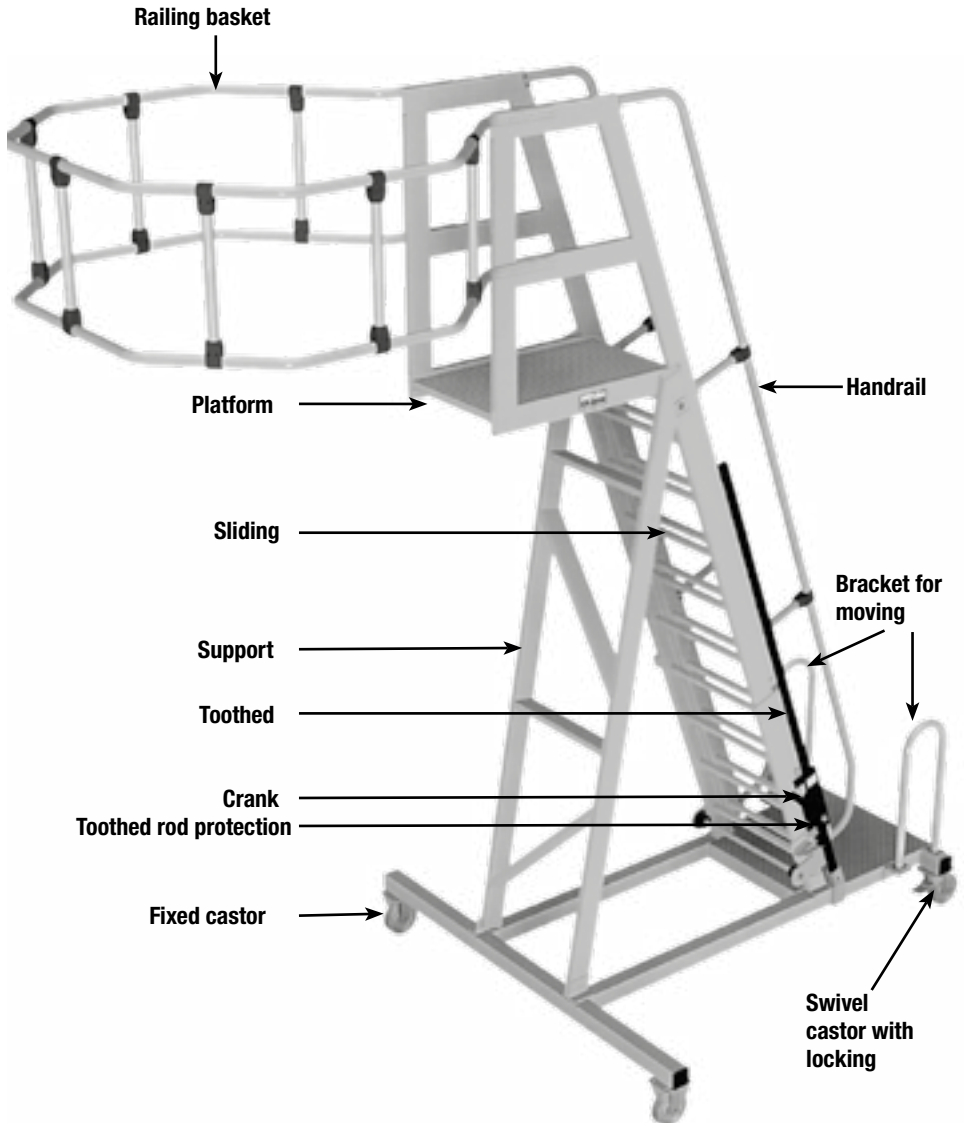
|                            |                                   |                |
|----------------------------|-----------------------------------|----------------|
| Vertical height Platform   | max.: 4.200 mm                    | min.: 2.880 mm |
| Total height with railing  | max.: 5.300 mm                    | min.: 3.980 mm |
| Step width                 | 500 mm                            |                |
| Transport waler width      | 2.000 mm                          |                |
| Railing basket             | 1.500 x 1.500 mm; chamfered edges |                |
| Chassis length             | 2.305 mm                          |                |
| Protrusion of the platform | approx. 275 mm to 810 mm          |                |

### The identification plate is on the ladder stringer

Example:



## 6. Names of parts





## 7. Installation of the tanker ladder

### 7.1 Preparation

- The ladder should only be installed on a ground with load-bearing capacity.
- Remove the packing material from the parts and dispose them professionally.
- Use only self-locking nuts.

The following aids and tools are required for the installation:

- at least 3 trained skilled workers from the metal processing.
- Stepladder approx. 2.20 m maximum stand height
- Ring or straddle wrench SW 13 mm, 2 x SW 17 mm; 2 x SW 19 mm
- Torque wrench;

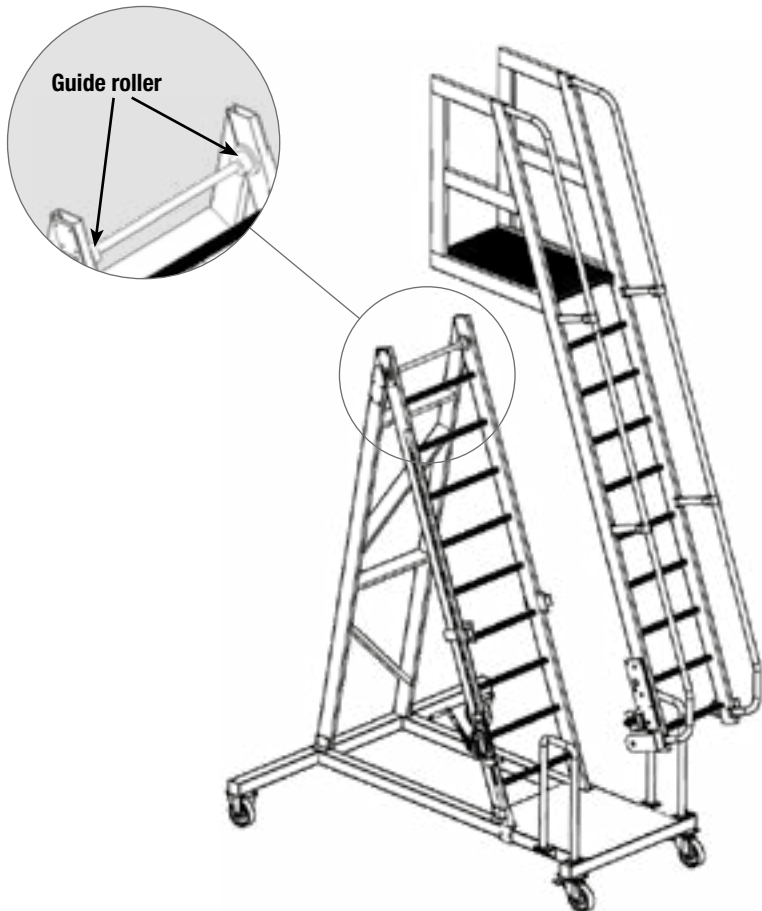
Tighten screws with the following values:

- M8: 20 Nm
- M10: 40 Nm
- M12: 69 Nm

## 7.2 Assembly of the tanker ladder

### Step 1:

Place sliding ladder on the platform with at least 3 persons on the braked step base. One employee should be on the stepladder and should place the sliding part at the upper end between the lower ladder stringers. The other two employees must stand below and lift the sliding part on the lower ladder part. Ensure that the stringers lie on the guide roller.

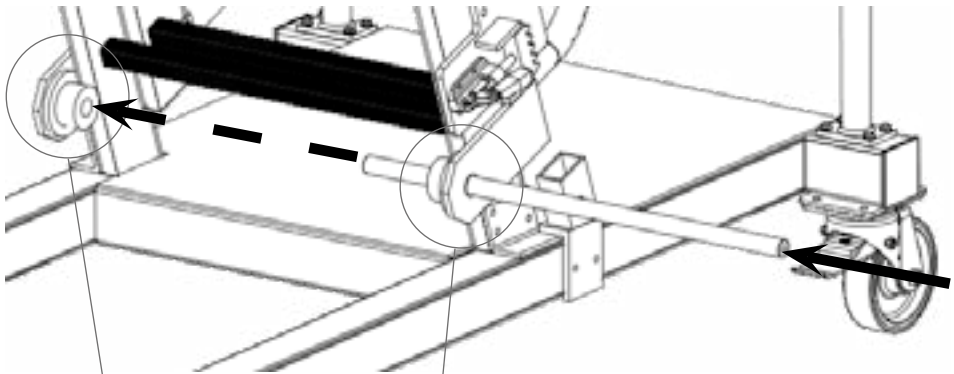


# ALULOCK

## Step 2:

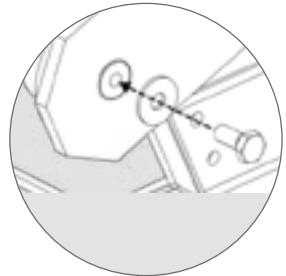
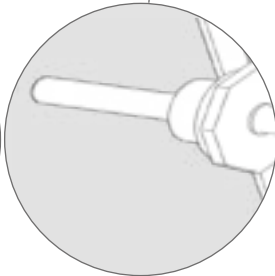
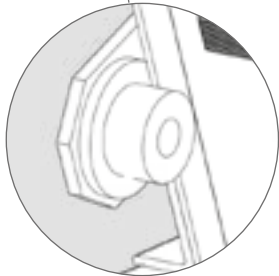
**Ensure, in any case, that the flight of stairs is held by at least one person continuously till final fixing (Step 3)**

- Insert the lower axle of the guide roller. Slide open the guide rollers under the flight of stairs on the axle so that the rolls guide the ladder/stair stringer from below.
- Fix the axle with screws at the outer side.



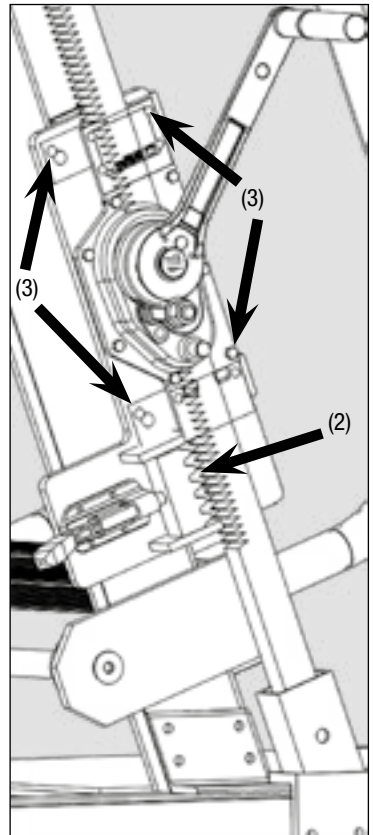
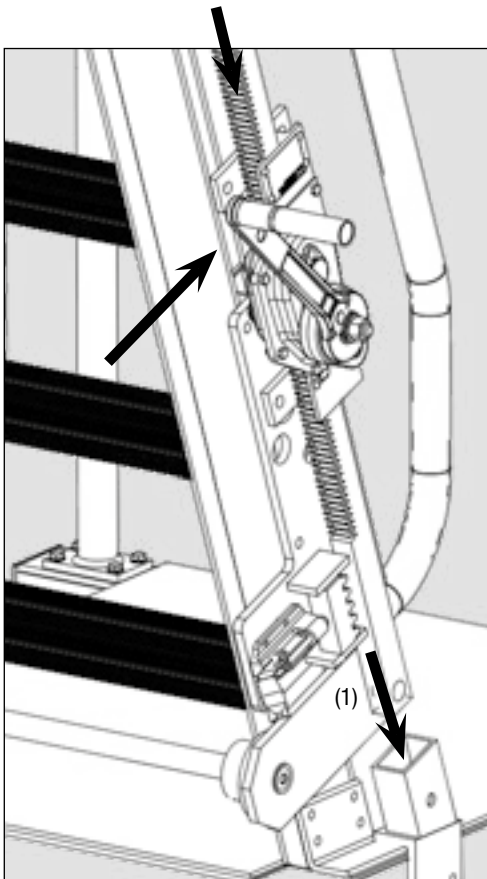
**Detail guide**

**fixing on both sides**



## Step 3:

- The flight of stairs put on must be held further.
- The toothed rod element must be inserted and fixed with the screw in the frame provided. (1)
- Ensure that the toothed rod protection is opened. (2)
- Then fix the crankcase at the stair construction with four screws (3).
- Now the flight of stairs need not be held anymore.

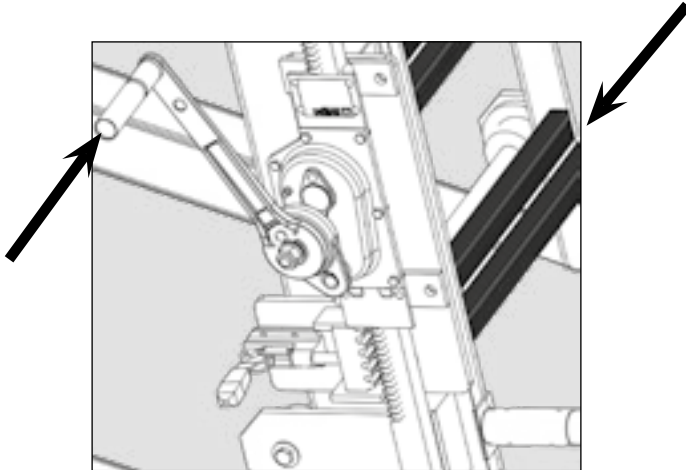


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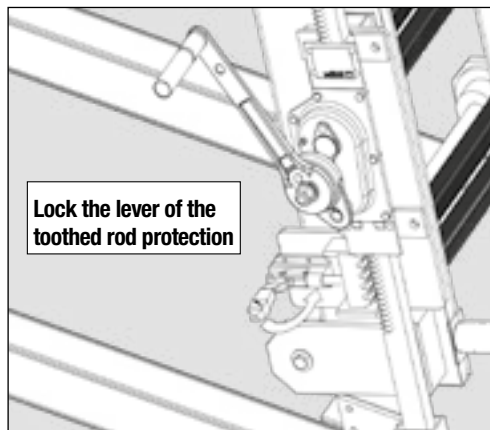
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## Step 4:

Rev up the toothed rod crank till the steps are at the same height.



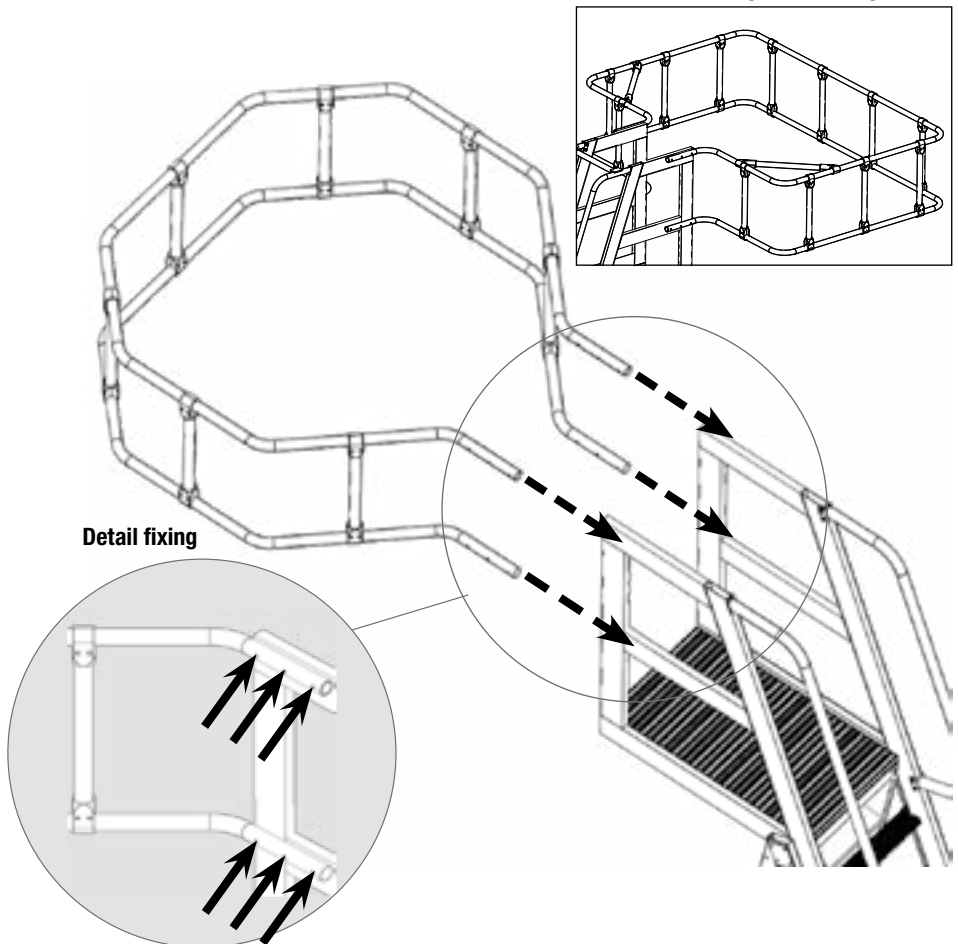
Then adjust the lever of the toothed rod protection so that the teeth engage in the toothed rod.



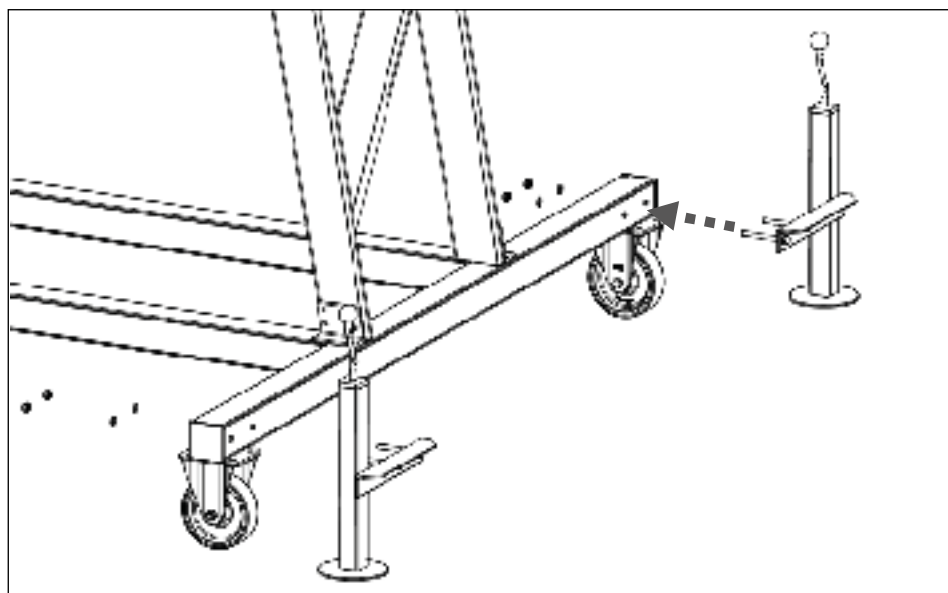
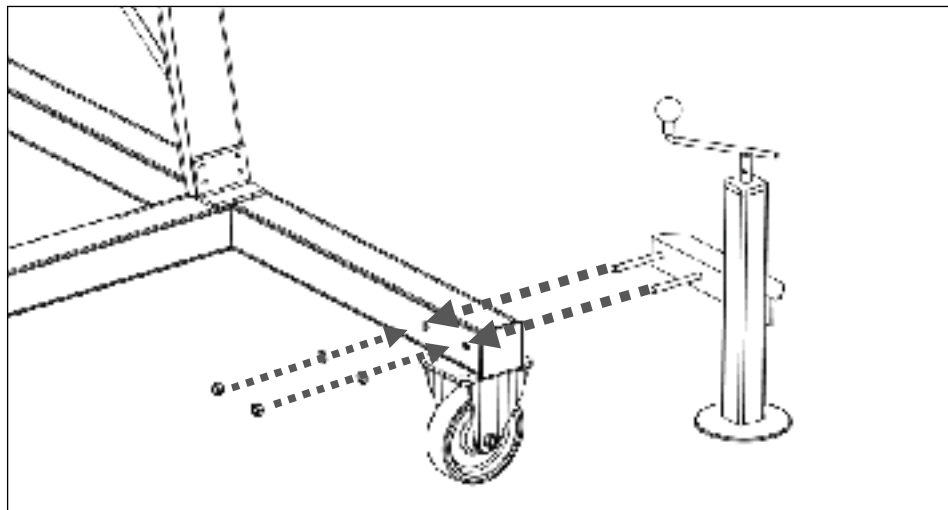
## Step 5:

- Lift the railing basket with a hoist.
- Bring the railing basket to installation position standing on the ladder.
- Fix the ends of the railings to the points provided at the platform railings with screws.
- This can be done from the platform of the tanker ladder.

## Execution: Round guard rail cage

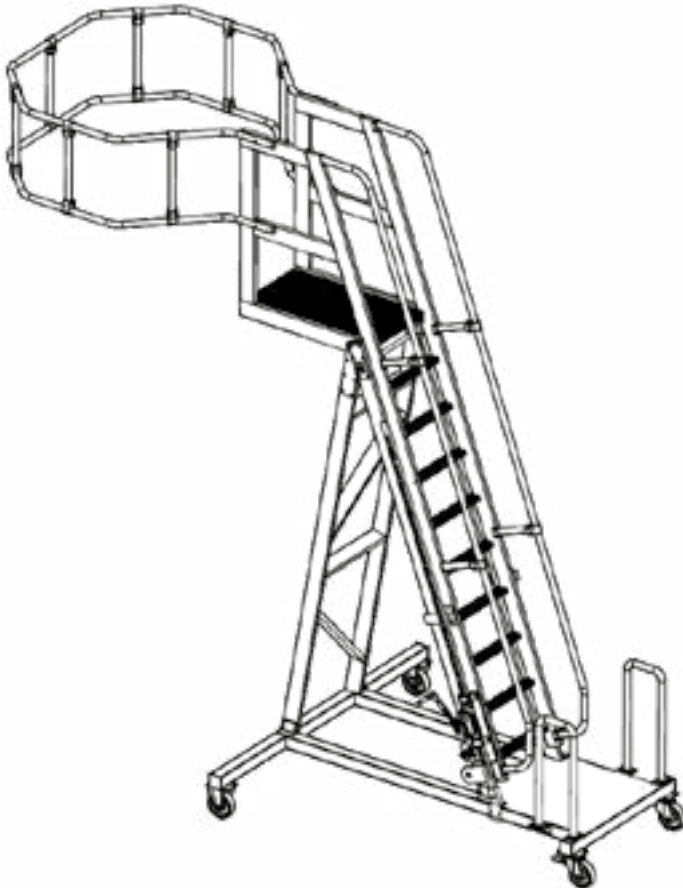


Only for Art.-No.: 890009, 890016, 89023, 089030



## Here is the ready tanker ladder

It can now be used taking the specifications of Points 2, 3, 4 and the following instructions into consideration.



## Dismantling

- At least 3 persons are required for the dismantling.
- The dismantling takes place in reverse sequence of the installation.

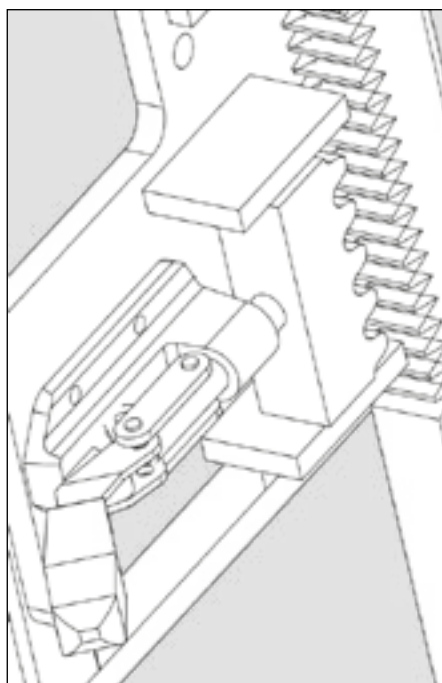


## 8. Height adjustment of the ladder

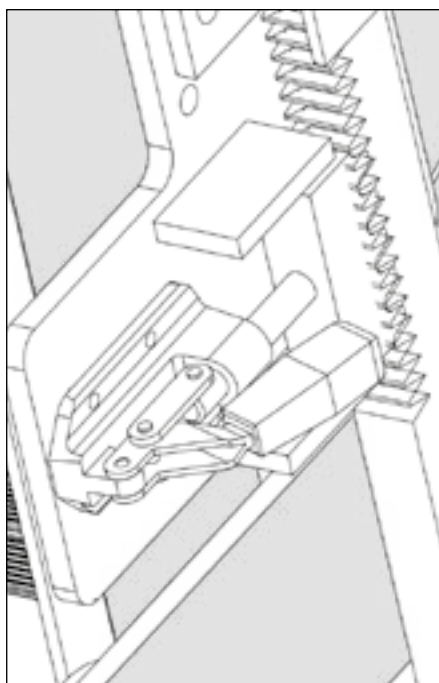
- Open the lever of the toothed rod protection prior to the operation of the crank (Figure 1 below).
- Set the desired height with the crank. Ensure climbing on the ladder only at equal height of the steps of the ladder behind and in the front.
- Then close the lever of the toothed rod protection again (Figure 2 below).

**Climb the ladder only when there is congruence of the steps, locked toothed rod protection and braked rolls!!**

1. Leveler opened



2. Leveler closed



For position of the toothed rod protection, see Description of parts on Page 28.

## 9. Maintenance and testing

### Lubrication of the rack

**The toothed rod must be checked on a weekly basis so that there is always a grease coat. If required, apply spray-on grease. Use customary spray-on grease.**

**Caution!** The grease should not reach the stepping area as increased accident risk will be caused via slipping off.

### Cleaning of the steps and the cross overs

Cleaning can be done with water and the addition of a customary cleaning agent.

### Examination on the components

**The tanker ladder must be checked for its functionality and faultless condition prior to each use. It must be regularly checked by an expert in alignment to the usage relationship according to DGUV 208-011.**

- All the parts must be checked for deformation, squashing, crack formation.
- Additionally, the brakes of the swivel castors must be tested for their functionality.
- Damaged parts or parts whose function is no longer ensured should not be used anymore and must be withdrawn from use. They should be used again only after expert maintenance.

## 10. Disposal

- The respective legal regulations pertaining to the disposal of technical units must be imperatively complied with while decommissioning the ladder!
- It must be ensured that the cleaning materials are disposed as per the applicable regulations. (91/689/EEC, 75/439/EEC).

## 11. Manufacturer's declaration

Hereby, we

**KRAUSE-Werk GmbH & Co. KG, Am Kreuzweg 3, 36304 Aisfeld**

declare that the products mentioned hereinafter were planned and manufactured in their design and type and the model that we put on the market in alignment with DIN EN 14122. This declaration loses its validity if there is a change in the products.

This declaration loses its validity if there is a change in the products.

- Description of the product: Tanker ladder
- Intended use: portable access to vehicle roofs and similar uses.
- Regulation: the applicable UVV